Addendum: P2.5-04.01

Date: February 5, 2014

From: Jeffrey Range

To: FPM, FS, CM

RE: P2.5-04.01 – Gen 2.5 Drain Tempering System for High Temperature Dishwasher

Title

Gen 2.5 Drain Tempering System for High Temperature Dishwasher

Issue

- The high temperature dishwasher discharges drain water above 140°F which is in violation of plumbing code 2012 803.1, wastewater temperatures.

Instructions

- A drain tempering system needs to be added to the dishwasher that will allow cold water to mix with the drain water to cool the discharge temperature to below 140°F. Stores receiving a new Dishwasher will receive the tempering system pre-installed from the manufacture.
- Dishwashers already shipped, but that have not been installed in the 2.5 construction will need to field install the tempering valve. See attached install drawings
- Dishwashers already installed will need to be retrofitted.
- A separate cold water line has to be run to the high temperature dishwasher tempering system solenoid.
- The High Temp dishwasher will only require Detergent and Rinse Aid. They will **NOT** require Sanitizer.
- Stores that have a low temp dishwasher already will require Sanitizer, Detergent and Rinse Aid. Low Temp dishwashers will not require an addition cold water line for the Tempering Valve but should install the additional cold water line for future high temp dishwasher.
- The Chemical alarm system required by the health department will be provided and installed by ECOLAB/SSDC. The alarm system is required for low temp and high temp dishwashers.

Attachments

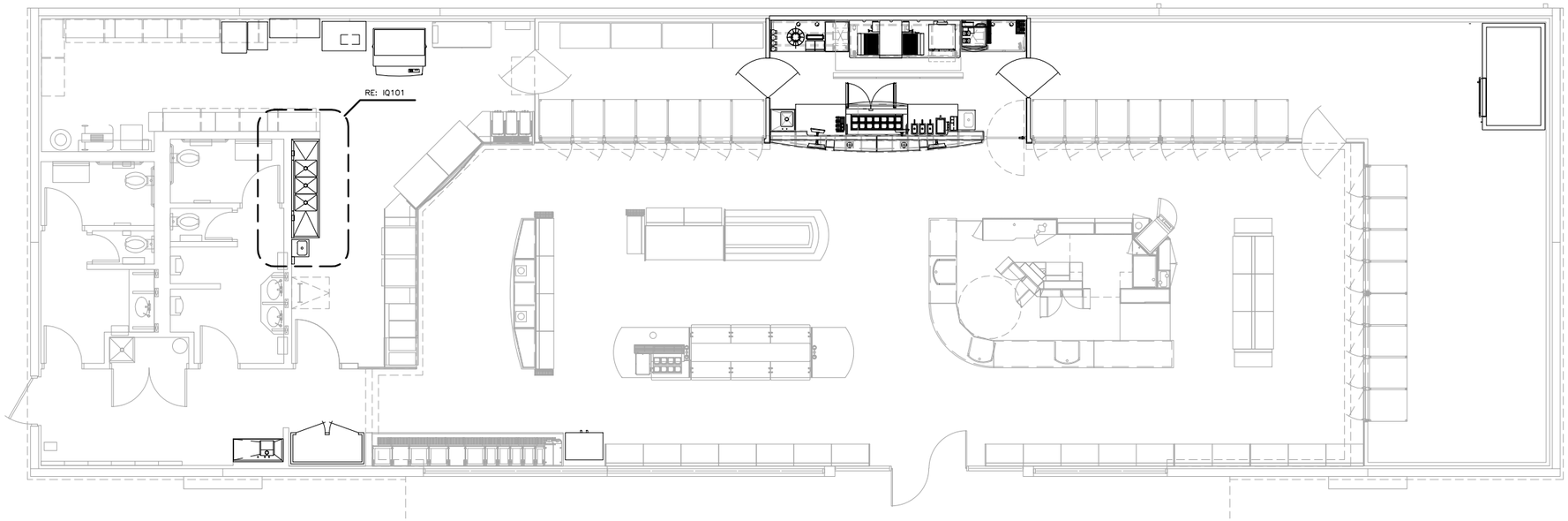
- IQ000 Ecolab/SSDC Retrofit Install
- IQ101 Ecolab/SSDC Retrofit Install
- IQ151 Ecolab/SSDC New Install
- IQ152 Ecolab/SSDC New Install
- High Temp Dishwasher Specification
- Tempering Valve Install

CMC ID#

- 26, 22

Contractor: If you have questions or need any more information please contact the FPM and submit all question through the RFI process. FPM's please call Jeff Range at 918-615-7077; fax 918-615-7932; email. jrange@quiktrip.com

GEN 2.5 ECOLAB / SSDC AND DISHWASHER RETRO - FIT INSTALL



A1	FLOOR PLAN
3/16"=1'-0"	

STORE NUMBER: ####

QuikTrip
4705 S. 129th E. Ave. Tulsa, OK 74134-7008
P.O. Box 3475 74101-3475
p:918.615.7700

ECOLAB / SSDC
AND DISHWASHER
RETRO-FIT INSTALL

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PROTOTYPE	
DIVISION	
VERSION	
DATE	01/22/2014

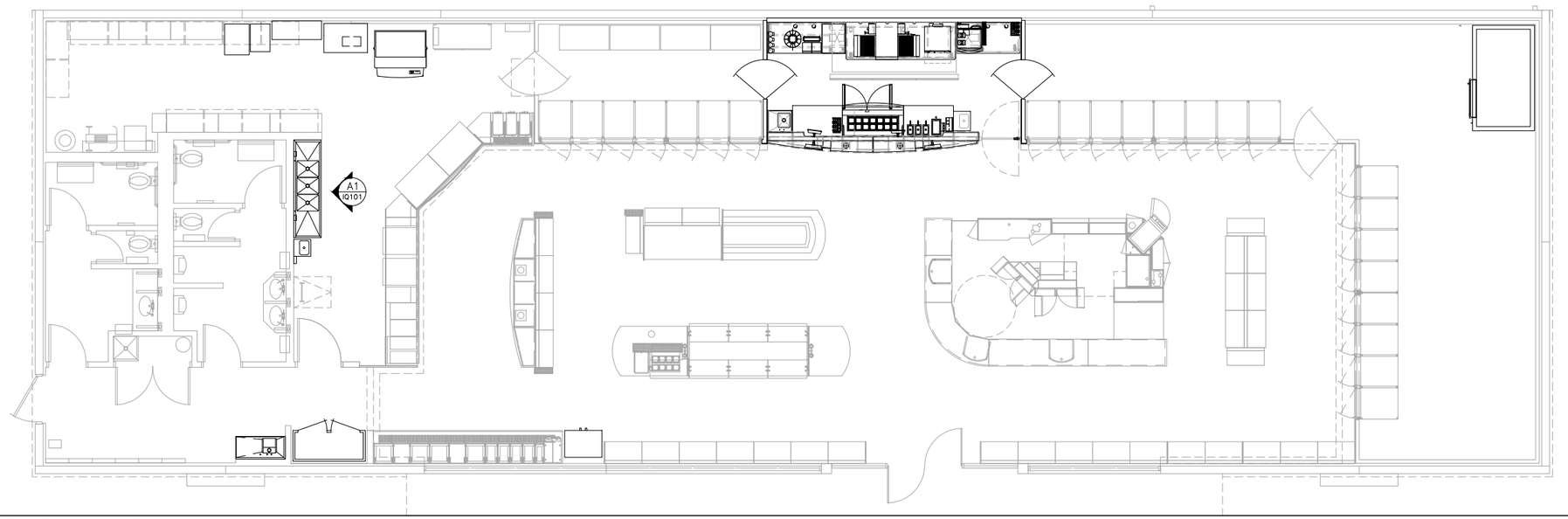
REV	DWN	DATE	DESCRIPTION

SHEET TITLE:
FLOOR PLAN

SHEET NUMBER:
IQ000

DRAWN BY: KDH

C:\Vault_QT\Corporate Projects\Gen 2.5 Full Service Counter Remodel\04 Install Manual\4600_5000 Install Manual\GEN 2.5 – Ecolab Retro-Fit Install.dwg – IQ000 November 21, 2013 4:07 PM – tcruz



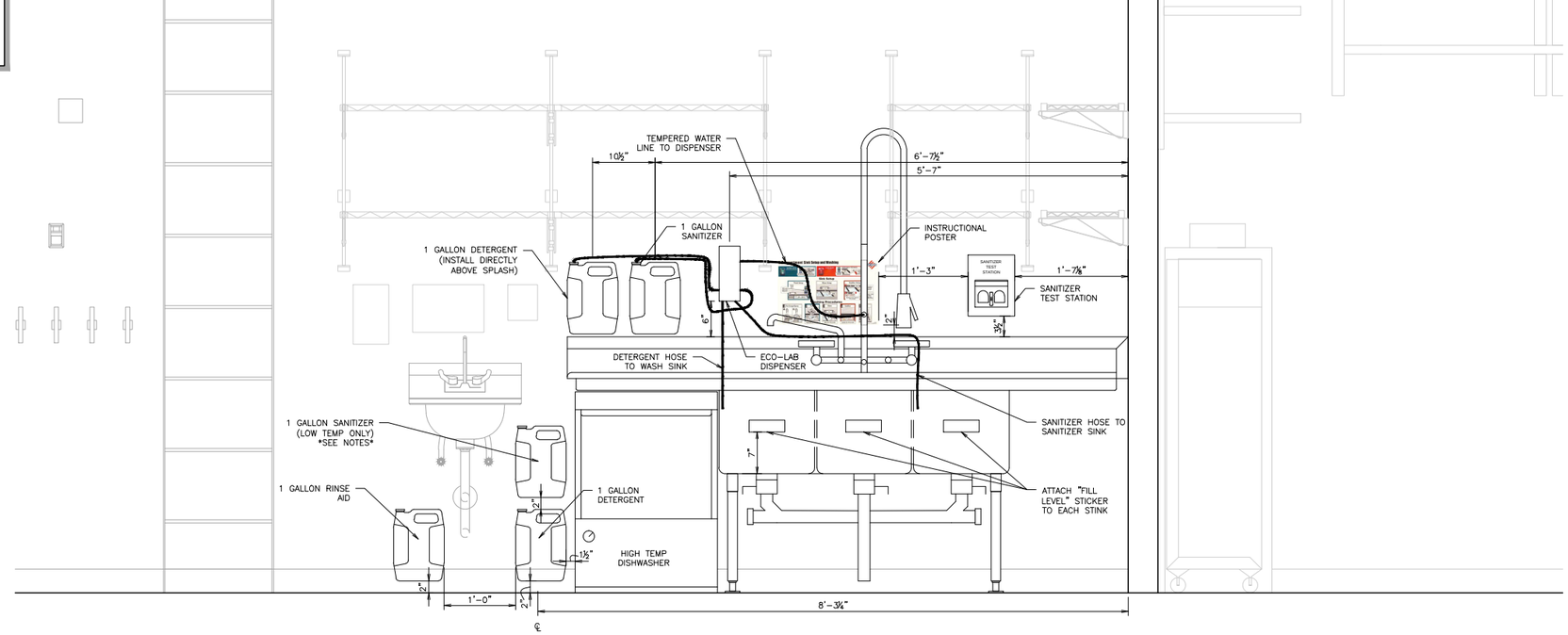
H1 | ECOLAB / SSDC AND DISHWASHER REFERENCE PLAN

3/16"=1'-0"

NOTES:

1. HIGH TEMP DISHWASHER REQUIRES RINSE AID AND DETERGENT.
2. LOW HEAT DISHWASHER REQUIRES DETERGENT, SANITIZER, AND RINSE AID.
3. HIGH HEAT DISHWASHERS REQUIRES A SEPARATE COLD WATER LINE ATTACHED TO THE WATER DISCHARGE SOLENOID TO COOL WATER BELOW 140°.

** DO NOT USE SANITIZER BOTTLES ON HIGH HEAT DISHWASHERS**



A1 | EC0LAB / SSDC AND DISHWASHER ELEVATION

1"=1'-0" | A1/IQ150A

STORE NUMBER: ####

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ECOLAB / SSDC AND DISHWASHER RETRO-FIT INSTALL

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DATE	01/22/2014

REV	DWN	DATE	DESCRIPTION

SHEET TITLE:

ECOLAB / SSDC DETAILS

SHEET NUMBER:

IQ101

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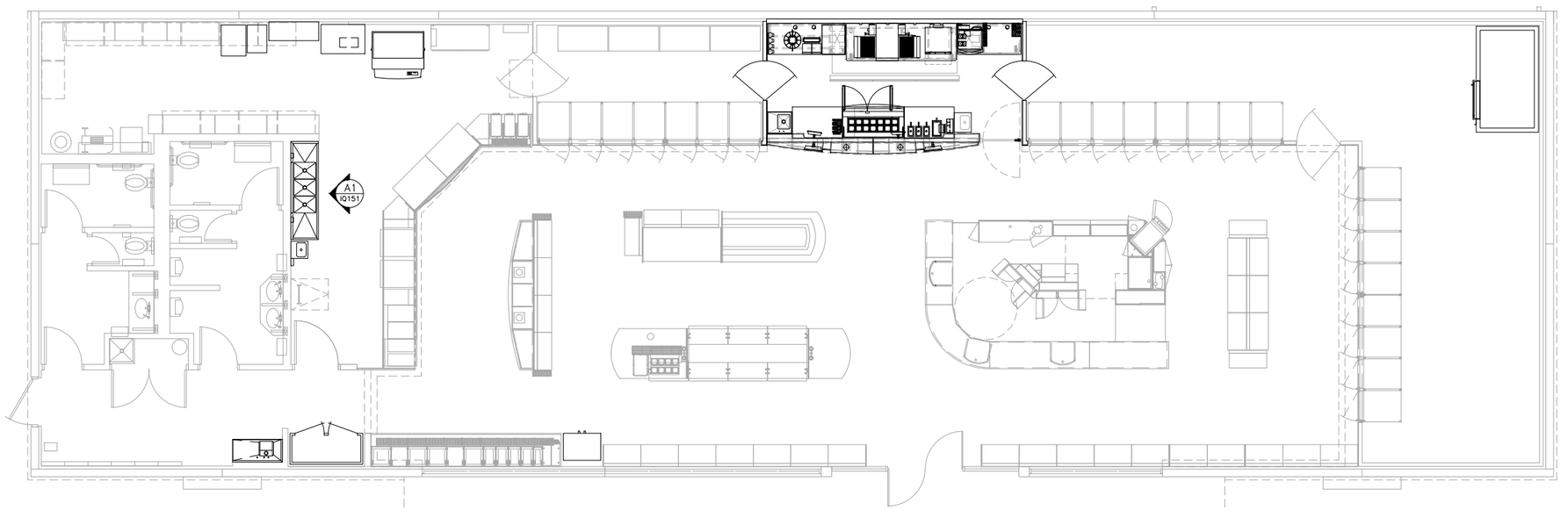


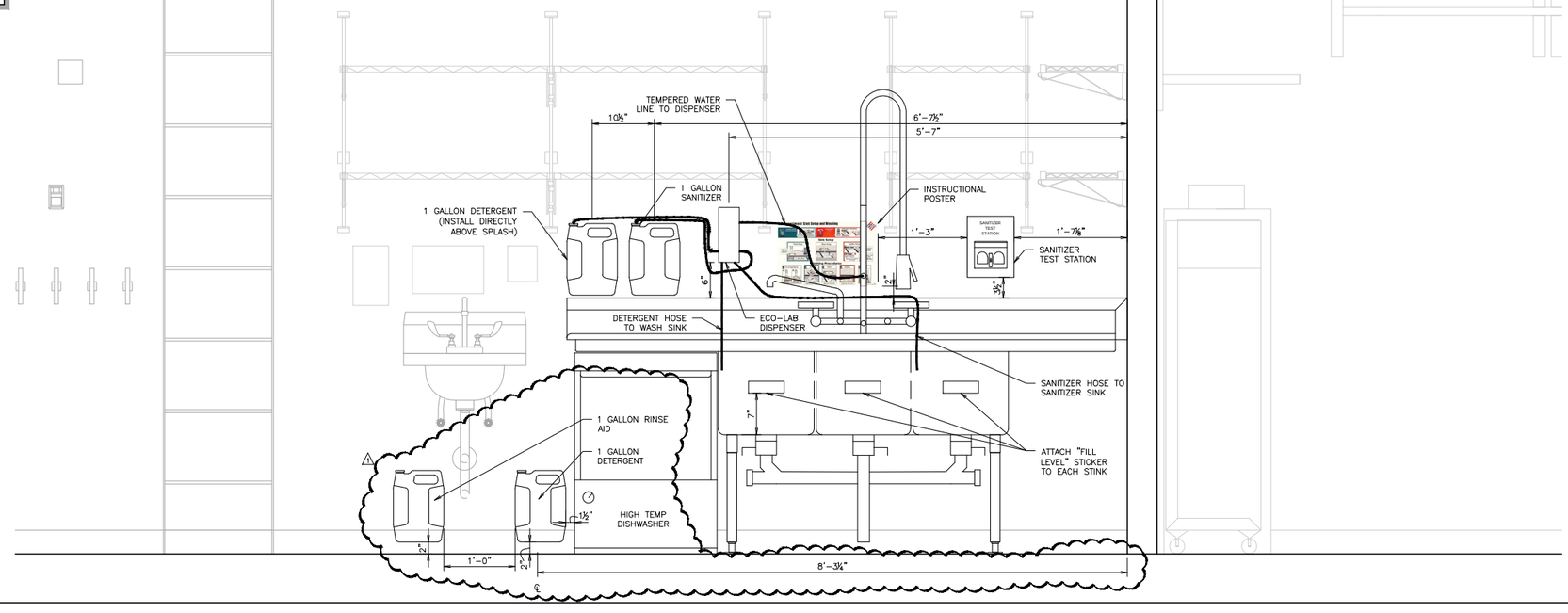
H1 | BACK ROOM PLAN

3/16"=1'-0"

NOTES:

1. HIGH TEMP DISHWASHER REQUIRES RINSE AID AND DETERGENT.
2. HIGH HEAT DISHWASHERS REQUIRES A SEPARATE COLD WATER LINE ATTACHED TO THE WATER DISCHARGE SOLENOID TO COOL WATER BELOW 140°.

** DO NOT USE SANITIZER BOTTLES ON HIGH HEAT DISHWASHERS**



A1 | EC0LAB/SSDC INSTALLATION

1"=1'-0" | A1/IQ150A

STORE NUMBER: ####

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GEN 2.5 BACK ROOM EQUIPMENT INSTALL

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PROTOTYPE	
DIVISION	
VERSION	
DATE	

REV	DWN	DATE	DESCRIPTION
1	TRC	02/22/14	P2.5-04-01

SHEET TITLE:

ECO-LAB DETAILS

SHEET NUMBER:

IQ151

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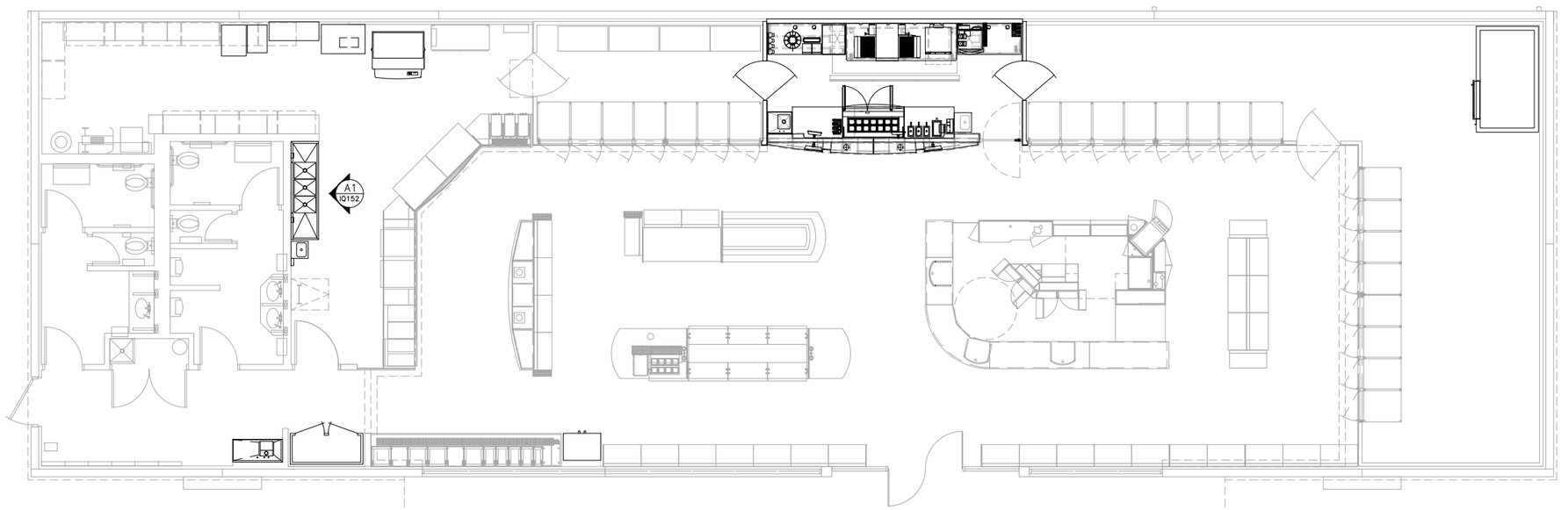
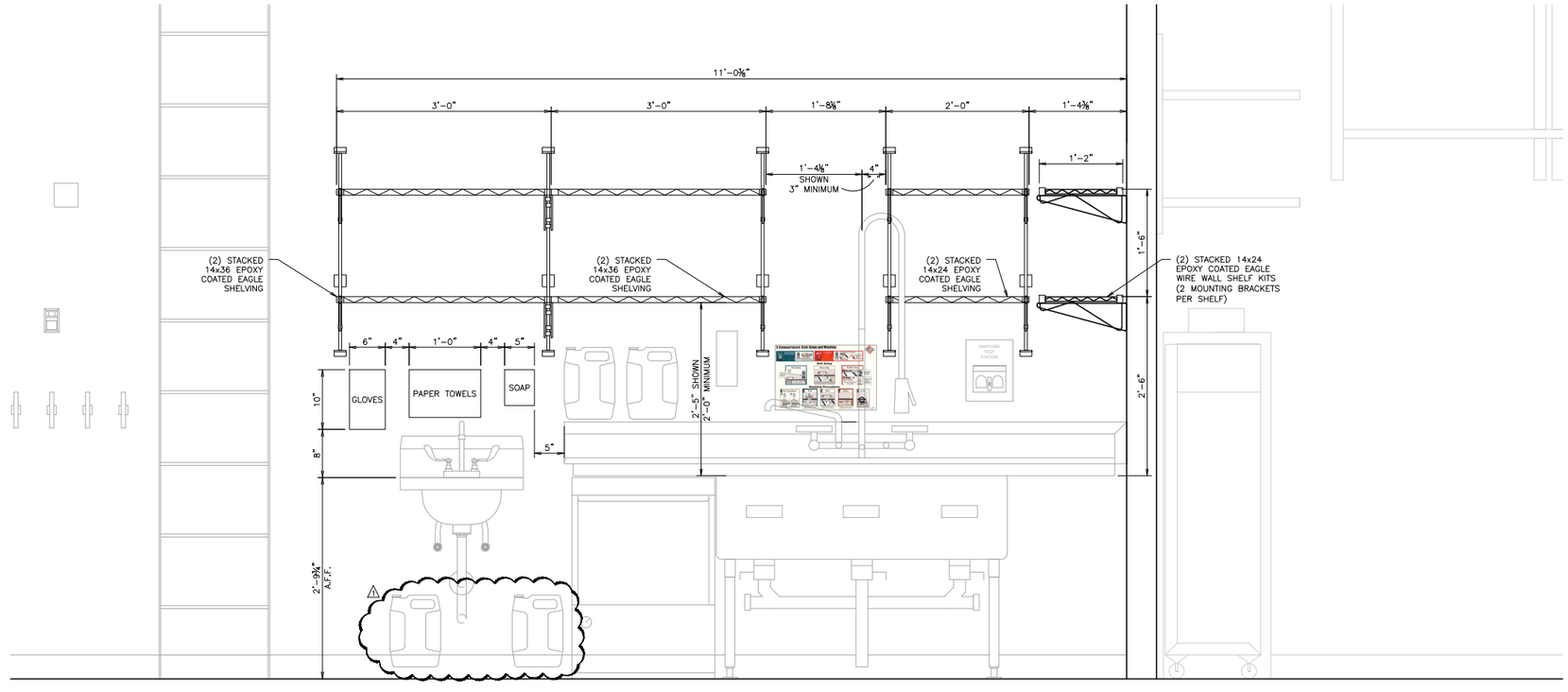


H1 | BACK ROOM PLAN

3/16"=1'-0"



NOTES:

ALL SHELVING DETAILED IN THIS VIEW ARE TO BE EPOXY COATED.

A1 | EC0-LAB INSTALLATION

1"=1'-0" | A1/IQ150A

C:\Vault_QT\Corporate Projects\Gen 2.5 Full Service Counter Remodel\04 Install Manual\4600_5000 Install Manual\GEN 2.5 4600_5000 Equipment Install Manual.dwg - IQ152 November 21, 2013 3:39 PM - ccalkins

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GEN 2.5 BACK ROOM EQUIPMENT INSTALL

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PROTOTYPE	
DIVISION	
VERSION	
DATE	

REV	DWN	DATE	DESCRIPTION
1	TRC	02/22/14	P2.5-04-01

SHEET TITLE:

SHELVING DETAILS

SHEET NUMBER:

IQ152

DRAWN BY: KDH

MOYER DIEBEL®

Simply Engineered Better

Project _____

Item No. _____

Quantity _____

201HT

Undercounter High Temperature
Dishwashing Machine
with Built-in Booster Heater

SPECIFIER STATEMENT

Specified unit will be Moyer Diebel Model 201HT undercounter high temperature dishwashing machine with built-in booster.

Features include 15-3/4" door opening, standard detergent and rinse-aid dispensing pumps. Built-in 40°F/22°C rise booster, and wash tank heater maintains water required temperature.

1 year parts and labor warranty.

STANDARD FEATURES

- **NEW Exclusive Feature** – Multi-phase allows for infield conversion from single to three phase electrical with ease!
- **NEW!** – Thermostatically controlled wash tank heater.
- ***NEW!*** Soft start provides gradual and quiet pump activation and helps prevent dish and glass breakage
- ***NEW!*** Top-mounted, user friendly, operator controls
- ***NEW!*** All stainless steel frame
- ***NEW!*** More powerful, yet whisper quiet, 1 Hp pump motor
- ***NEW!*** Upper and lower interchangeable spray arms
- ***NEW!*** Push button activation prevents unnecessary and wasteful cycling
- Soft start, protects dishes and glasses from chipping or breakage
- Proprietary Non-Corrosive Engineered Composites are used in parts that *appear* to be plastic
- Fill and dump type operation. Rinse water always re-used as next cycle's wash water. Low 1.5 imp gal (7L) water usage per rack.
- Liquid detergent and rinse-aid dispensing pumps complete with prime switches
- Flexible fill and drain lines, flow regulator/line strainer and standard pumped drain for total ease of installation
- Quick 141 second cycle time. 21 racks per hour capacity
- Large 15-3/4" [400mm] door opening accommodates trays
- Rugged, counter-balanced, double skin door, for quieter operation and durability
- Rinse-sentry feature. Ensures proper 180°F final rinse temperature
- Complete with two 20" x 20" [508mm x 508mm] racks (one peg & one flat)
- One year parts and labour warranty.

OPTIONS & ACCESSORIES

☐ 70°F/39°C rise booster	
☐ CST – Combination sink/table Machine on right	P/N 403561
☐ CST – Combination sink/table Machine on left	P/N 403562
☐ Flat bottom dishrack	P/N 101273
☐ Peg dishrack	P/N 101285
☐ 6" Stand	P/N 0712393
☐ 17RS – 17" Stand	P/N 0708757

MD031 Printed in U.S.A.

Moyer Diebel – USA
3765 Champion Blvd., Winston-Salem, NC 27105 Tel: 336/661-1992 Fax: 336/661-9546 800/228-8350
www.moyerdiebel.com

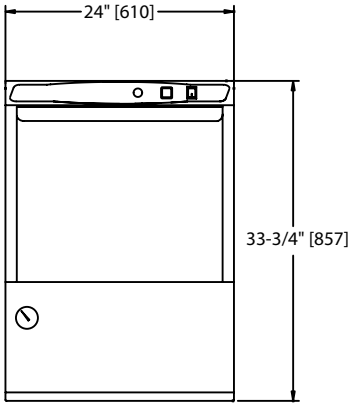
MOYER DIEBEL®

Simply Engineered Better

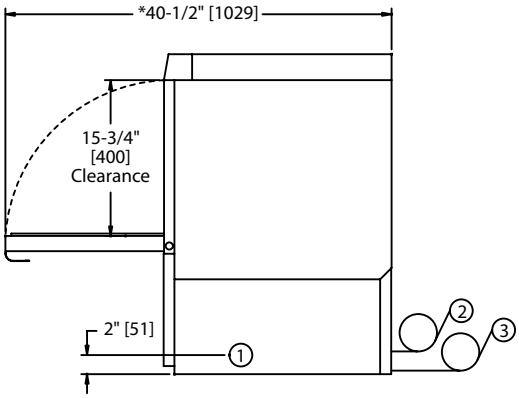
201HT

Undercounter
High Temperature Dishwashing Machine
with Built-in Booster Heater

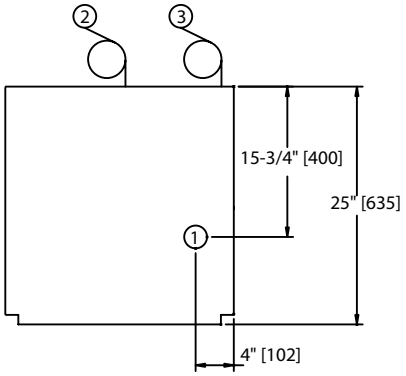
Dimensions shown in inches and [millimeters]



Front View



Side View



Plan View

***Note:** Allow additional 3" clearance from wall.

Utilities

1	**Electrical Connection** 208-240/60/1; 3 wire plus ground, (See Box). 208-240/60/3; 4 wire plus ground, (See Box).
2	**Hot Water** 140°F/60°C Min., hot water for 40°F/22°C rise booster. 110°F/43°C Min., hot water for 70°F/39°C rise booster. 5 ft. long 1/2" I.D. flexible fill hose with 3/4" hose connector. Flow pressure: 25-95 psi (173-656 kPa)
3	**Drain Connection** 5/8" [15.9] I.D. flexible reinforced hose, 6 ft. [1829] long. Max. drain flow 15 US gpm. [12.5 imp gal] Max. drain height 3 ft. [914]

201HT with 40°F Rise Booster

Electrical Specs.	Rated Amps	Minimum Supply Ckt. Conductor Ampacity	Maximum Overcurrent Protective Device
208/60/1	32	40	40
240/60/1	36	40	40
208/60/3	22	30	30
240/60/3	24	30	30

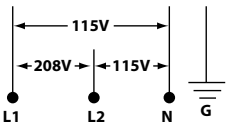
201HT with 70°F Rise Booster

Electrical Specs.	Rated Amps	Minimum Supply Ckt. Conductor Ampacity	Maximum Overcurrent Protective Device
208/60/1	45	60	60
240/60/1	50	60	60
208/60/3	29	35	35
240/60/3	33	40	40

	Uncrated	Crated
Height	33-3/4"	39-1/2"
Width	24"	25"
Depth	25"	25-1/2"
Ship Wt. lbs/kg	178	198
* Adjustable foot height - 11/4" [45]		

201HTN without booster
750 Watt tank heat

Electrical Specs.	Rated Amps
115/60/1	12



***Note:** Electrical supply service must be a 3-wire plus ground for connection as shown.

Note: Field convertible to accept 3 phase power.

SPECIFICATIONS

Capacity	
Racks per hr.	21
Motor Horsepower	
Wash	1
Water Consumption	
Per hr. (max. use)	38.4 US gal;
Per rack	1.8 US gal;
Temperatures °F	
Wash (minimum)	150
Rinse (minimum)	180
Heating	
Tank heat, electric (kW)	2.0
Electric booster	
(kW required for 40°F rise)	6
(kW required for 70°F rise)	9
Time Cycle in Seconds	
Wash	90
Rinse	26
Drain/fill	25
Total	141

Warning: Plumbing and electrical connections should be made by qualified personnel who will observe all the applicable plumbing, sanitary and safety codes.

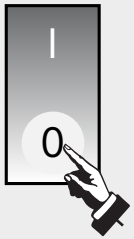
Due to an ongoing value analysis program at Moyer Diebel, specifications in this catalog are subject to change without notice.

Instructions

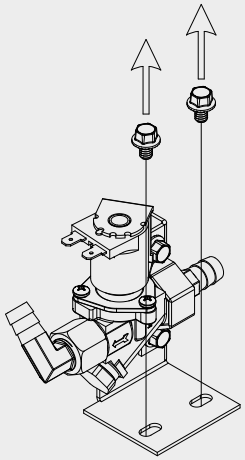
0512423-1 REV. A

1 Turn off all power to the machine and at the circuit breaker.

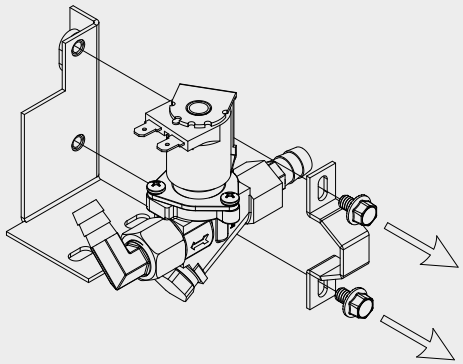
Remove two screws located at the lower portion of the lower front panel, and remove panel.



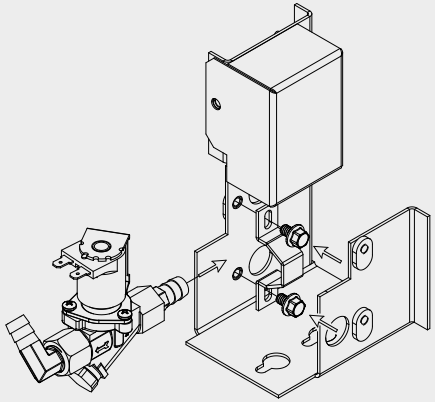
2 Remove the two bolts on base that hold the water valve in the machine, and pull assembly out enough to access the saddle clamp bolts on the bracket side.



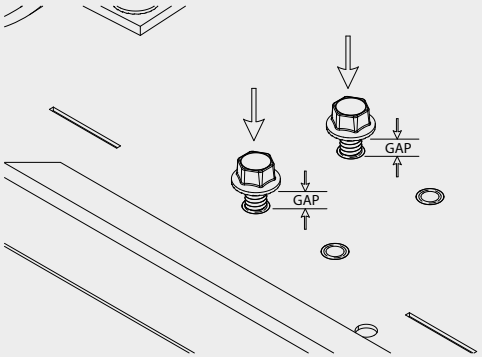
3 Remove two bolts on the saddle clamp holding the valve to the bracket.



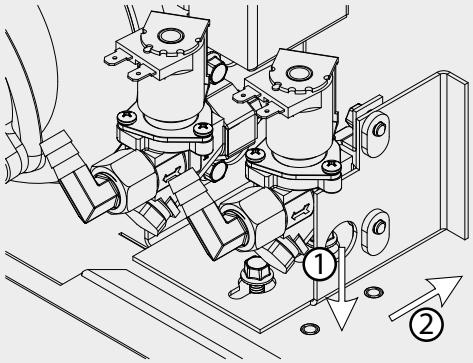
4 Place the valve on the provided bracket, and attach using the saddle clamp and bolts which were removed from the existing bracket .



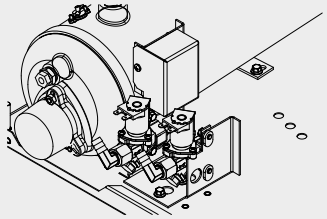
5 Start the bolts into the left set of valve mounting holes on the base (closest to booster).



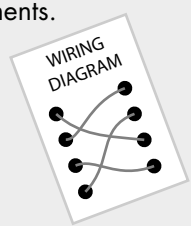
6 Place the new bracket on to the bolts. Ensure that the new water supply hose is routed through the machine with the existing fill hose. Route the drain hose to the back of the machine.



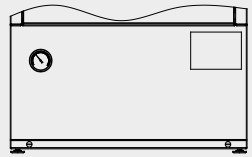
7 Push bracket back, and tighten mounting bolts.



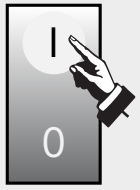
8 Follow wiring diagram provided to properly wire the new components.



9 Ensure that wires are not under strain, and replace front panel of machine.



10 Turn the circuit breaker on and reconnect power to the machine.



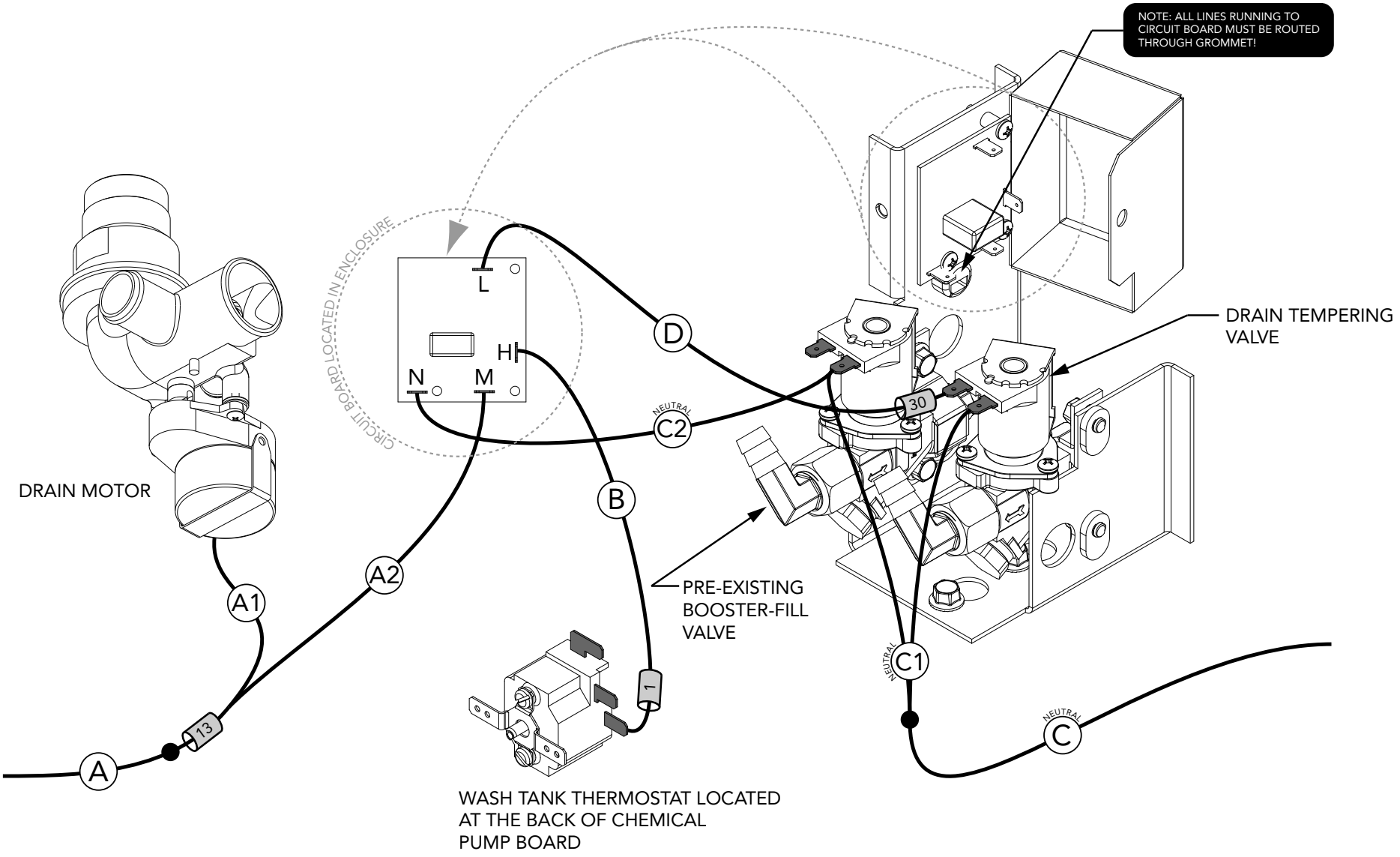
Part List

0512423-1 REV. A

ID	NUMBER	DESCRIPTION	QTY
1	0504952	VALVE, FILL 5.0 GPM-500/501HT	1
2	0312759	BRACKET, DRAIN TEMPERING MTG PLATE	1
3	0300203	CLAMP, 500T/HT	1
4	0512185	BOLT, HEX FLANGE 1/4-20 X 3/8 SS	2
5	0503679	CLAMP, SS GEAR - MIN 5/16, MAX 7/8	3
6	0502618	HOSE BARB, 1/2 X 3/8 MPT	1
7	0502653	ELBOW, 90 DEG 3/8 MPT X 1/2 HOSE	1
8	0509526	HOSE, 1/2 X 7FT FEM. GARD. ADAPT.	1
9	0509091	LABEL, COLD WATER IDENT.	1
10	0509092	LABEL, HOT WATER IDENT.	1
11	0512423-1	INSTRUCTIONS, DRAIN WATER TEMPERING KIT U/C	1
12	0312760	COVER, CIRCUIT BOARD, DRAIN TEMPERING KIT	1
13	0512759	BOARD, CIRCUIT, F&D DRAIN TEMPERING KIT	1
14	0512483-1	HARNESS, DRAIN TEMPERING KIT, F&D	1

Wiring Diagram

0512423-1 REV. A



- (A) LINE (BLACK WIRE) WHICH WAS CONNECTED TO DRAIN MOTOR
- (A1) FROM "A" to DRAIN MOTOR
- (A2) FROM "A" to "MOTOR" SPADE ON DRAIN TEMPERING CIRCUIT BOARD
- (B) WASH TANK THERMOSTAT to "HOT" SPADE ON DRAIN TEMPERING CIRCUIT BOARD
- (C) NEUTRAL WHICH WAS CONNECTED TO BOOSTER FILL VALVE
- (C1) FROM "C" to NEUTRAL (RIGHT SIDE) SPADE OF BOOSTER FILL VALVE AND DRAIN TEMPERING VALVE
- (C2) PIGGY BACK CONNECTION ON NEUTRAL OF BOOSTER FILL VALVE to "NEUTRAL" SPADE ON DRAIN TEMPERING CIRCUIT BOARD
- (D) LINE (LEFT SPADE) OF DRAIN TEMPERING VALVE TO "LOAD" ON DRAIN TEMPERING CIRCUIT BOARD